

In the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please cancel claims 2 and 23 to 36 without prejudice or disclaimer.

Please add claims 37 to 63 as follows:

Claims 1 to 36 (canceled)

37. (new) An isolated HIV envelope protein or fragment thereof of at least 37 amino acids comprising the amino acid sequence PMGPGRAFYTTGQ (SEQ ID NO: 24) or conservative amino acid substitutions at positions 3 to 9 of said amino acid sequence.

38. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the HIV envelope protein or fragment thereof induces the production of a cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*.

39. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the fragment is about 37 to about 100 amino acid residues in length.

40. (new) The isolated HIV envelope protein or fragment thereof of claim 39 wherein the fragment is a cyclic peptide.

41. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the protein comprises the amino acid sequence of SEQ ID NO: 1.

42. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the protein consists essentially of the amino acid sequence of SEQ ID NO: 1.

43. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the protein consists of the amino acid sequence of SEQ ID NO: 1.

44. An isolated protein comprising the amino acid sequence of SEQ ID NO: 1.

45. An isolated protein consisting of the amino acid sequence of SEQ ID NO: 1.

46. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the HIV envelope protein or fragment thereof is recombinantly produced.

47. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the protein or fragment thereof is glycosylated at one or more amino acid residues.

48. (new) The isolated HIV envelope protein of claim 37 wherein the HIV envelope protein or fragment thereof is synthetically produced.

49. (new) The isolated HIV envelope protein or fragment thereof of claim 37 wherein the protein or fragment thereof is linked to a second protein.

50. (new) A composition comprising an isolated HIV-1 envelope protein or fragment thereof of any one of claims 37 to 49 and a pharmaceutically acceptable carrier.

51. (new) The composition of claim 50 further comprising an adjuvant.

52. (new) A method of generating antibodies in a mammal comprising administering the composition of claim 51.

53. (new) A method of generating antibodies in a mammal comprising administering the isolated HIV-1 envelope protein or fragment thereof of any one of claims 37 to 49.

54. (new) A method of producing antibodies in a mammal comprising administering an isolated HIV envelope protein comprising the amino acid sequence PMGPGRAFYTGGQ (SEQ ID NO: 24) or conservative amino acid substitutions at positions 3 to 9 of the amino acid sequence in an amount sufficient to induce the production of the antibodies cross-reactive against multiple strains of HIV-1 *in vitro*.

55. (new) The method of claim 54 wherein the protein comprises SEQ ID NO: 1 or a fragment thereof of at least 37 amino acids.

56. (new) The method of claim 54 wherein the fragment is about 37 to about 100 amino acid residues in length.

57. (new) The method of claim 54 wherein the protein or fragment thereof is glycosylated at one or more amino acid residues.

58. (new) The method of claim 54 wherein the antibodies produced neutralize multiple strains of HIV-1 *in vitro*.

59. (new) The method of claim 54 wherein the antibodies produced are monoclonal.

60. (new) The method of claim 54 wherein the antibodies produced are polyclonal.

61. (new) The method of claim 54 wherein the mammal is a human.

62. (new) The method of claim 54 wherein the mammal is a mouse.

63. (new) The method of claim 54 wherein the mammal is a primate.